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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,225	03/26/2001	Peter Hawkins	109068	5800
25944	7590	09/21/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DO, PENSEE T	
			ART UNIT	PAPER NUMBER
			1641	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/816,225

**Applicant(s)**

HAWKINS ET AL.

**Examiner**

Pensee T. Do

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Prosecution re-opened***

The finality is withdrawn and prosecution is re-opened due to new grounds of rejection.

### ***Withdrawn Rejection(s)***

The 103 rejections in the advisory are withdrawn.

### ***Newgrounds of Rejection(s)***

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Simmonds (US 6,046,585).

Simmonds teaches an apparatus for quantitatively measuring groups of magnetic particle. The apparatus comprising a movable substrate for immobilizing magnetic particles and sample comprising target species. Magnetic particle is complexed with the target species in the sample. Such complex is bound to the substrate at a predetermined position on the substrate. Such substrate is a disc made of glass, plastic, or silicon. The disc made up of plastic is equivalent to the plastic strip claimed in claim 12. A magnetic field is applied to excite the particles along with the sample bound to the substrate. Measuring accumulation of magnetic particles by means of AC magnetic

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excitation and inductive sensing of the amplitude of the resulting oscillation of the magnetic moment of the particles at the excitation frequency. This is equivalent to the resonant frequency when the magnetic particles are exposed to a magnetic field. The digitized shape of the signal amplitude with respect to the sample position is compared to the theoretical response shape using appropriate curve fitting techniques (see col. 3, lines 25-35). The fields from the sample are closely coupled to an array of inductive sensing coils (which are equivalent to ring coil, see Fig. 4). Such inductive sensing coil is equivalent to the tuned circuit of the present invention because it has inductive coil and a capacitance. (see fig. 4). The voltage induced across the sensing coils is amplified and processed by phase-sensitive detection (phase detector). An inductive pickup from the drive field itself serves as the reference signal to the phase detector circuit. The output of the phase detector is filtered and then digitized. Simmonds also suggests that the apparatus is used in a broad approach to detect the presence of a particular compound of interest-analyte- in immunoassay in which detection is given molecular species, referred to as the ligand is accomplished through the use of a second molecular species or the antiligand, or the receptor. Antiligand and ligand are usually antibody and antigen. The antiligand/ligand complex is labeled and then detected. (see col. 1, lines 10-63; col. 2, line 65-col. 3, line 35; col. 4, line 1-col. 7, line 36). Simmonds also teaches that the signal from the sensing coils in the presence of the drive field and in the absence of the sample serves as the reference signal (col. 6, line 66-col. 7, line 2). Since the sample is absence, it is not exposed to a magnetic field.

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Thus, this meets the limitation of the sample not exposed to a magnetic field in the present invention.

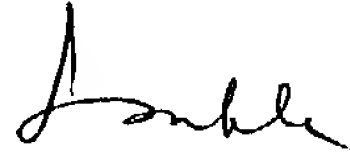
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pensee T. Do whose telephone number is 571-272-0819. The examiner can normally be reached on Monday-Friday, 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pensee T. Do  
Patent Examiner  
September 2, 2002

  
LONG V. LE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

09/17/02